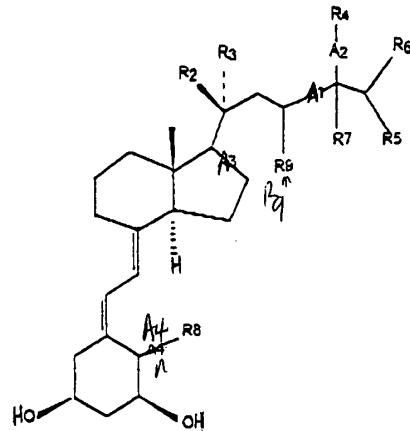


In the Claims:

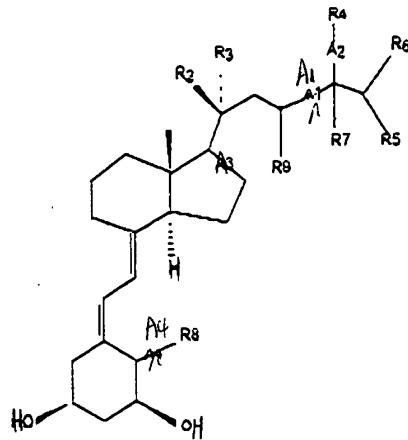
Please amend claims 2, 4, 5, 8 and 9 as follows:

2 (Amended) An isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound[s] having [the] formula II as follows:



[,]wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

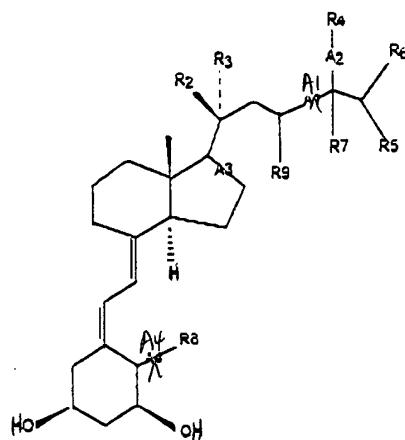
3
4. (Twice Amended) A method of treating a disorder characterized by an aberrant activity of a vitamin D₃-responsive cell, comprising administering to a subject an effective amount of a vitamin D₃ compound [of claim 2,] having formula II as follows:



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl, such that the aberrant activity of the vitamin D₃-responsive cell is reduced.

4
5. (Amended) [The] A method of [claim 4, wherein the disorder comprises] treating a disorder characterized by an aberrant activity of a hyperproliferative skin cell, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1 α -hydroxyvitamin D3 compound having formula II as follows:

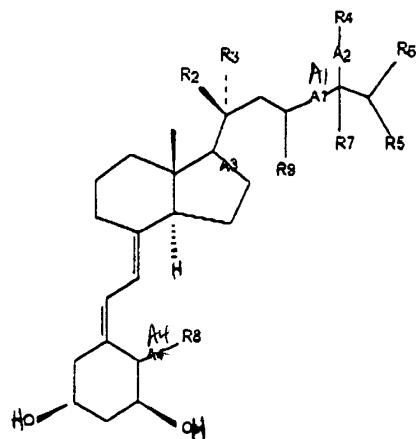


II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl, such that the aberrant activity of the hyperproliferative skin cell is reduced.

8. (Amended) [The] A method of [claim 7, wherein the disorder is] treating secondary hyperparathyroidism, comprising administering to a subject an effective amount of an isolated 3-*epi* form of a 1*α*-hydroxy-vitamin D3 compound having formula II as follows:

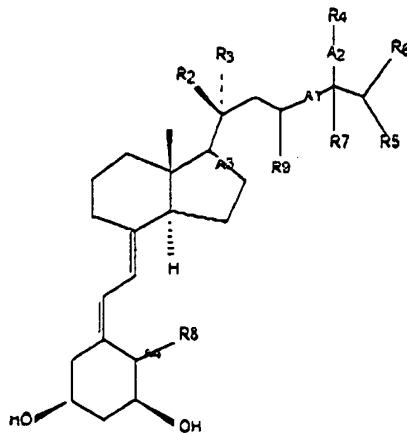
C2



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

9. (Amended) [The] A method of [claim 8, wherein the disorder comprises] treating a disorder characterized by an aberrant activity of a bone cell, comprising administering to a subject an effective amount of an isolated 3-epi form of a $\Delta\alpha$ -hydroxy-vitamin D₃ compound having formula II as follows:

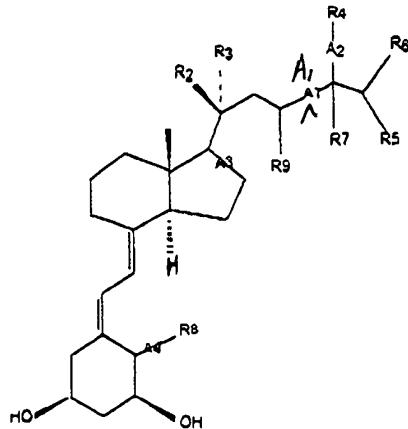


wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl, such that the aberrant activity of the bone cell is reduced.

Please add new claims 18-27:

15
--18. (New) A method of treating osteoporosis, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

C3



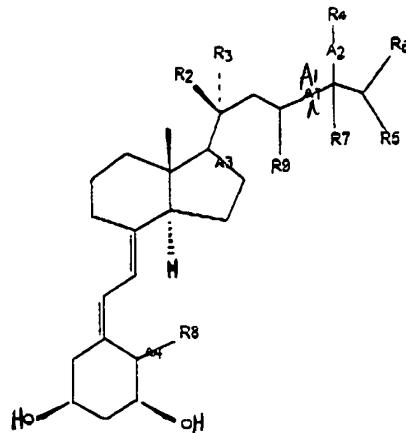
II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

(16)

19. (New) A method of treating osteodystrophy, comprising administering to a subject an effective amount of an isolated 3-epi form of a $\Delta\alpha$ -hydroxy-vitamin D3 compound having formula II as follows:

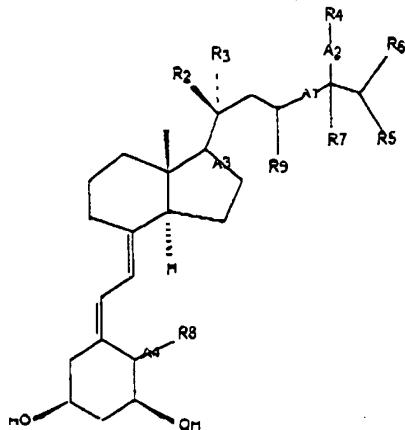
C3
Central
Control



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

17
20. (New) A method of treating senile osteoporosis, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1 α -hydroxy-vitamin D3 compound having formula II as follows:

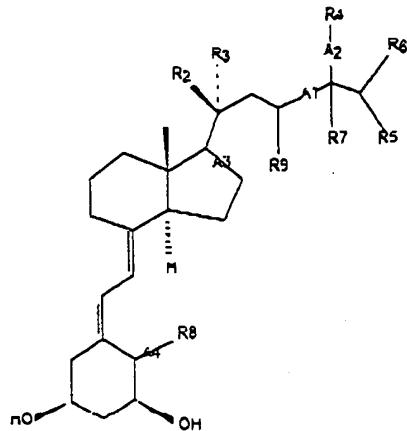


wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

18

21. (New) A method of treating osteomalacia, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

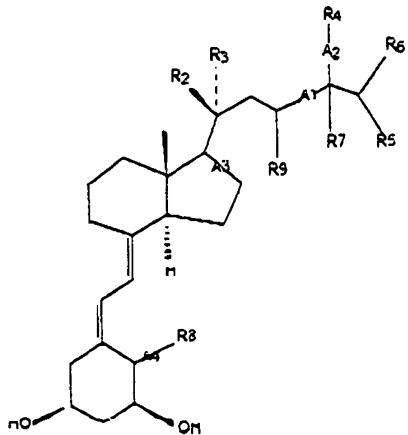
C3
COPPER



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

19
22. (New) A method of treating rickets, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

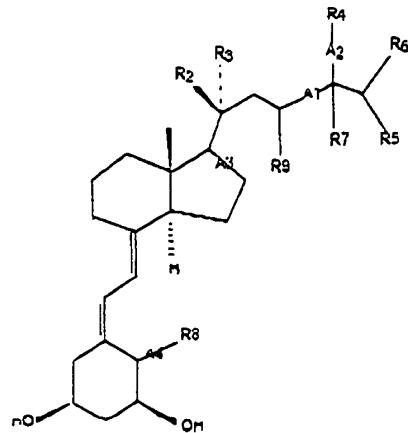


II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

a0

23. (New) A method of treating osteitis fibrosa cystica, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

*C3
d11*

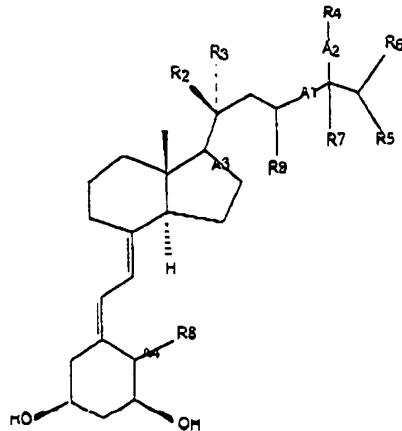
II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

21

24. (New) A method of treating renal osteodystrophy, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

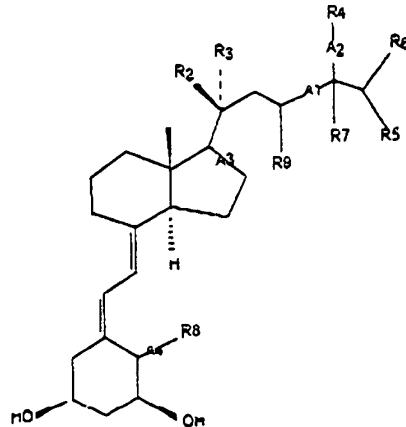
C3
COPyed



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

22
25. (New) A method of treating cirrhosis, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:

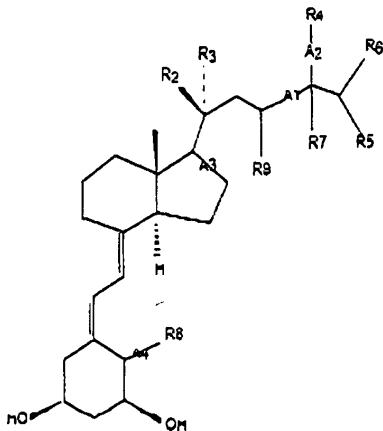


II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

23

26. (New) A method of treating chronic renal disease, comprising administering to a subject an effective amount of an isolated 3-epi form of a 1α -hydroxy-vitamin D₃ compound having formula II as follows:



II

wherein A₁ is a single, a double, or a triple bond; A₂, A₃ and A₄ are each independently selected from the group consisting of a single or a double bond; R₂, R₃, R₄, R₇, R₈ and R₉ are independently selected from the group consisting of a hydrogen, a deuterium, a deuteroalkyl, a hydroxy, an alkyl, an alkoxide, an O-acyl, a halogen, a haloalkyl, a hydroxyalkyl, an amine or a thiol group, and wherein the pairs of R₂ and R₃, and R₄ and R₇ taken together are an oxygen atom; and R₅ and R₆ are independently selected from the group consisting of a hydrogen, a deuterium, a halogen, an alkyl, a hydroxyalkyl, a haloalkyl, and a deuteroalkyl.

27. (New) The method of any one of claims 4, 5, 8, 9 or 18-26 inclusive, wherein said compound is 1α (OH) vitamin D₃, $1\alpha,24$ dihydroxy 3-epi vitamin D₃, 1α hydroxy 24-ethyl 3-epi vitamin D₃, 1α hydroxy 24-methyl 3-epi vitamin D₃, or $1\alpha,24$ -dihydroxy 24-methyl 3-epi vitamin D₃--